CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-116

WASTE DISCHARGE REQUIREMENTS FOR:

CALIFORNIA DEPARTMENT OF WATER RESOURCES,
DELTA FARMS, ISLAND FARM, AND
CALIFORNIA DEPARTMENT OF FISH AND GAME
SOLANO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. The Department of Water Resources submitted a Report of Waste Discharge dated October 15, 1985.

2. The California Department of Water Resources proposes to dredge up to 116,000 cubic yards (cy) of material from the east end of Montezuma Slough and place it on land owned by the Departments of Water Resources and Fish and Game, and Delta Farms and Island Farm (hereinafter dischargers).

   The proposed dredging would deepen and widen the slough to allow for construction of the Montezuma Slough Control Structure. This structure is one of the Suisun Marsh facilities being constructed to meet the requirements of State Water Resources Control Board Decision 1485, and will help to regulate water quality in the marsh through the use of radial gates that will promote the flow of fresh water into the Marsh and limit seawater intrusion.

   The Montezuma Slough Control Structure will consist of three distinct components:

   a. The control gate structure, with three 36 foot-wide radial gates to control flow in Montezuma Slough.

   b. A flashboard opening to allow emergency barge passage when the structure is in operation, and routine boat and barge passage when the structure is not in operation.

   c. A boat lock to allow passages for boats when the flashboard opening is closed.

3. The dredged material changes with location, varying from levee embankment material with riprap to sands, silts, bay mud, and clays. It is proposed that all dredged material will be disposed of on Van Sickle and Hammond Islands. The proposed sites (see Attachment A) are:

   a. Reuse Site 1 Proposed Reuse Site 1 is located north of the control structure. This site will be used for about 500 cubic yards of material that will be mechanically dredged from the west levee of the control structure location. This material will be trucked about 0.5 mile northwest to Hammond Island just north of the Department of Water Resources' pond. The materials will be placd in a strip along the landward toe of a reach of levee that needs improvement. The site is owned by the California Department of Fish and Game.

   b. Reuse Site 2 Proposed Reuse Site 2 is located southwest of the control structure. It is anticipated that hydraulically dredged material from the foundation area of the control structure will be pumped about 1.6 miles southwest to a levee improvement site on the west side of Van Sickle Island. The materials will be placed along the landward toe of a levee reach that needs improvement. The site is owned by Island Farm.

   c. Reuse Site 3 Proposed Reuse Site 3 is located southwest of the east mouth of Montezuma Slough. Hydraulically dredged material from the east mouth of the slough will be pumped about 1.6 miles southwest to a proposed levee improvement site on the south side of Van Sickle Island. The materials will be placed along the landward toe of the levee. The site is owned by Delta Farms.

   d. Recreation Area Site About 5,500 cubic yards of material will be excavated by clamshell dredge from the east levee at the control structure location. It is planned to use this material on site in constructing a recreation area. This site will be owned by the California Department of Water Resources.

4. Reuse Sites 2 and 3, which receive hydraulically dredged material, will have 3.75 foot containment dikes built around the areas. These contained areas will serve as settling ponds, and each will have a weir structure at the point of discharge where the effluent will be monitored.

5. The Regional Board adopted a revised Water Quaity Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Suisun Bay and contiguous waters.

6. The beneficial uses of Suisun Marsh, Montezuma Slough, Honker Bay and contiguous waters as set forth in the Basin Plan are:

   Water Contact Recreation
   Non-contact Water Recreation
   Sport Fishing
   Wildlife Habitat
   Preservation of Rare and Endangered Species
   Warm Fresh Water Habitat
   Estuarine Habitat
   Brackish Marsh
   Fish Migration and Spawning
   Navigation

7. The dischargers prepared an Environmental Impact Report (EIR) dated February 1984 and an Addendum to the EIR dated July 1985 on the Plan of Protection for the Suisun Marsh in accord with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.). The EIR and addendum covered the proposed dredging and dredge spoil disposal operations that are the subject of this Order.

8. The EIR and addendum reported the dredging and dredge spoil disposal operations could temporarily disturb vegetation but no long term adverse effects are expected. It further reported that turbidity could be increased but since the work will be done in accord with permits, the increase in turbidity will be temporary and not significant.

9. Compliance with Receiving Water Limitation B.2.f. of this Order will mitigate the adverse environmental impacts of the project and, therefore, compliance with waste discharge requirements will prevent significant adverse effects on the environment.

10. The discharger and interested agencies and persons have been notified of the Board's intent to prescibe requirements for the proposed discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

11. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger in order to meet the provisions contained in Division 7 of the California Water Code, and regulations adopted thereunder, and the provisions of the Clean Water Act, as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. Waste Discharge Specifications

1. The return water as discharged to the waters of the State from the land disposal areas shall not exceed the following limits:

Constituents	Units	Limits
a. Settleable Matter	ml/l-hr	1.0
b. Dissolved Sulfide	mg/l	0.1

2. The pH of the return water as discharged to waters of the State from the land disposal areas shall not exceed 8.5 nor be less than 6.5.

3. Return water from all land disposal sites must comply with Waste Discharge Specifications A.1 and A.2 where it is discharged from the settling ponds.

4. A minimum freeboard of one foot shall be maintained in the settling ponds at all times.

B. Receiving Water Limitations

1. The dredging, disposal or discharge of waste shall not create a nuisance or pollution as defined in the California Water Code.

2. The dredging or disposal of waste shall not cause:

   a. Floating, suspended or deposited macroscopic particulate matter or foam in waters of the State at any place more than 100 feet from the dredge or point of discharge of return flow;

   b. Bottom deposits or aquatic growths in waters of the State at any place;

c. Alteration of apparent color beyond present natural background levels in waters of the State at any place more than 100 feet from the dredge or point of discharge of return flow:

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin in waters of the State at any place;

e. The following limits to be exceeded in waters of the State at any place:

(1) Dissolved Oxygen	7.0 mg/l minimum. When natural factors cause lesser concentrations, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
(2) Toxic or Other Deleterious Substances	None shall be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

f. The turbidity of the waters of the State at any point beyond 100 feet from the dredge or from the point of discharge of the return flow to increase above background levels by more than the following:

Receiving Water Background	Incremental Increase
<5 Units	5 Units, maximum
5-100 Units	10 Units, maximum
>100 Units	10% of Background, maximum

C. Provisions

1. Silt, sand, soil, clay, or other earthen materials from dredging, construction, or any other onshore operations in quantities sufficient to cause deleterious bottom deposits or turbidity or discoloration in excess of natural background levels in surface waters are prohibited.

2. Dredging operations shall cease and Regional Board shall be notified immediately whenever violations of requirements are detected by the self-monitoring program and operations shall not resume until alternative methods of compliance are provided.

3. Dredge disposal shall be limited to the areas specified in Finding 2 of this Order unless written authorization is obtained from the Board's Executive Officer for the use of additional area.

4. The discharger shall comply with all sections of this order immediately upon adoption.

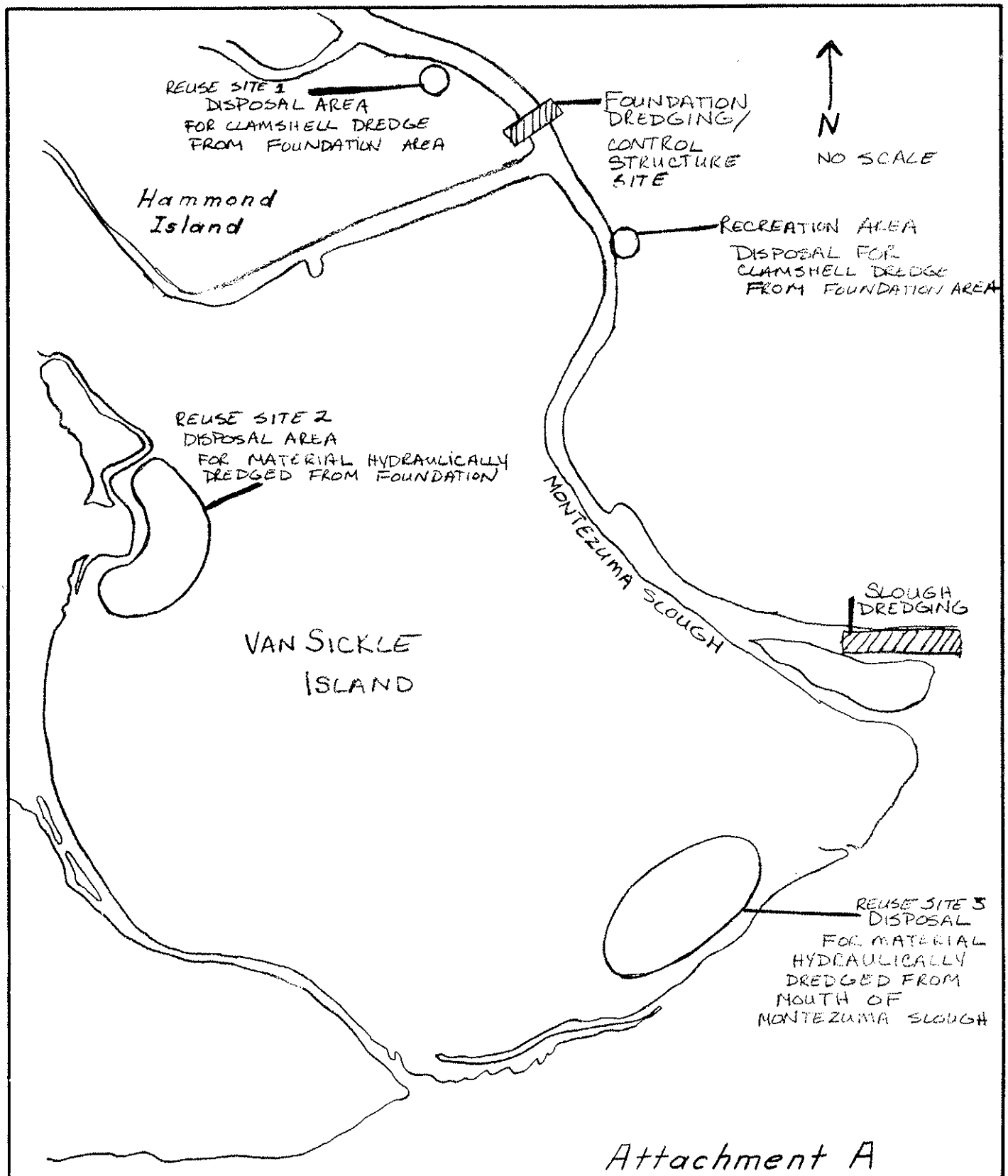
5. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977 except Standard Provisions A.1, A.5, A.7, A.9, A.10, A.12 and A.16; and Reporting Requirements B.2, B.3 and B.5.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on October 16, 1985.

for
ROGER B. JAMES
Executive Officer

Attachments:
Attachment A
Standard Provisions and Reporting Requirements, April 1977
Self-Monitoring Program



Attachment A

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Dredge Spoil Disposal Sites

DEPT OF WATER RESOURCES

DRAWN BY: YHW	DATE: 8-85	DRWG. NO. 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CALIFORNIA DEPARTMENT OF WATER RESOURCES,

DELTA FARMS, ISLAND FARM, AND DEPARTMENT OF

FISH AND GAME

SOLANO COUNTY

NPDES NO. _____

ORDER NO. 85-116

CONSISTS OF

PART A, dated January 1978

AND

PART B

Part B

I. DESCRIPTION OF SAMPLING STATIONS AT THE DREDGE AND AT EACH OF THE SETTLING PONDS ON THE LAND DISPOSAL AREAS

A. Settling Ponds:

Station	Description
I-1	Between the inlet to the dredge and the end of the pipe discharging to the settling pond.
E-1 thru E-'n'	Each point of discharge from all settling ponds on all land disposal areas.

B. Settling Ponds' Return Water Areas

Station	Description
C-1-P.1. thru C-1-P.'n'	At points located 20 feet downstream from each point of discharge of return water from all settling ponds on land disposal areas.
C-2-P.1. thru C-2-P.'n'	At points located within the center of the visible waste field 120 feet downstream from each point of discharge from all settling ponds on land disposal areas.
C-R-P.1. thru C-R-P.'n'	At a point located 1000 feet downstream from each point of discharge of return water from all settling ponds on land disposal areas.

C. Dredge Area:

Station	Description
C-1-D	At a point located in the visible waste field resulting from the dredging activity and within 20 feet downstream from the point of dredging.
C-2-D	At a point located in the visible waste field resulting from the dredging activity and 120 feet downstream from the dredge. (A sketch showing the location of the waste field shall accompany every report).
C-3-D	At a point located in the visible waste field resulting from the dredging activity and 300 feet downstream from the dredge.
C-R-D	At a point located at least 1000 feet upstream from the dredge and not in the visible waste field.

D. Land Observations

Station	Description
L-1 thru L-'n'	Located along the perimeter levee of every land impoundment facility at equidistant intervals not to exceed 400 feet. (A sketch showing the location of these stations will accompany each report).

II. SCHEDULE OF SAMPLING, MEASUREMENTS AND ANALYSIS

A. The schedule of sampling, measurement and analysis shall be that given in Table I.

B. Standard Observations for all C stations include:

(1) Floating and suspended materials of waste origin: presence or absence, source and size of affected area (to include oil, grease, algae, and other macroscopic particulate matter).

(2) Discoloration and turbidity: description of color, source, and size of affected area.

(3) Odor: presence or absence, characterization, source, and distance of travel.

(4) Time and height of low tides corrected to nearest location for the sampling date and time of sample collection.

(5) Water and sampling depths.

C. Standard Observations for all L stations include:

(1) Determination of the amount of freeboard at lowest point of dikes confining liquid wastes.

(2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch).

(3) Odor: presence or absence, characterization, source, and distance of travel.

(4) Evidence of low points in dike resulting in overflow of water other than described in Report of Waste Discharge. Low points shall be filled immediately with appropriate fill material.

D. Sampling is required whenever dredging occurs. Sampling related to each settling pond shall begin when the pond is put into operation and continue until discharge from the pond stops.

E. All E station samples shall be collected during the first and last hours of operations each day.

F. The dischargers shall provide written notification to the Board within seven days preceding the commencement of dredging and of the use of each of the land disposal areas or settling ponds.

III. MODIFICATION OF PART A DATED JANUARY 1978

A. Exclusions: Paragraphs C.1., C.3., C.4., C.5., D.1., D.2., D.3.a., E.4., F.3.e., F.3.g., and F.4.

B. Paragraph E.1. is revised to read: "Written reports ... shall be maintained at the Department of Water Resources office and shall be retained for a minimum of three years ..."

I, Roger B. James, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 85-116.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

Laurence P. Kolb
for
ROGER B. JAMES
Executive Officer

Effective Date October 16, 1985

Attachments:
Table I and Legend for Table

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	I-1	All E Stat.	All C Stat.	All L Stat.								
TYPE OF SAMPLE	Cont.	G	G									
Flow Rate (mgd)	D											
BOD, 5-day, 20°C or COD (mg/l & kg/day)												
Chlorine Residual & Dosage (mg/l & kg/day)												
Settleable Matter (ml/1-hr. & cu. ft./day)		2/D										
Total Suspended Matter (mg/l & kg/day)												
Oil and Grease (mg/l & kg/day)												
Coliform (Total or Fecal) (MPN/100 ml) per req't												
Fish Tox'y 96-hr. TL % Surv'l in undiluted waste												
Ammonia Nitrogen (mg/l & kg/day)												
Nitrate Nitrogen (mg/l & kg/day)												
Nitrite Nitrogen (mg/l & kg/day)												
Total Organic Nitrogen (mg/l & kg/day)												
Total Phosphate (mg/l & kg/day)												
Turbidity (Jackson Turbidity Unit)			W									
pH (units)		2/D	W									
Dissolved Oxygen (mg/l and % Saturation)		2/D	W									
Temperature (°C)			W									
Apparent Color (color units)												
Secchi Disc (inches)												
Sulfides(if DO <5.0 mg/l) Total & Dissolved (mg/l)		2/D	W									
Arsenic (mg/l & kg/day)												
Cadmium (mg/l & kg/day)												
Chromium, Total (mg/l & kg/day)												
Copper (mg/l & kg/day)												
Cyanide (mg/l & kg/day)												
Silver (mg/l & kg/day)												
Lead (mg/l & kg/day)												

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	I-1	All E Stat.	All C Stat.	All L Stat.								
TYPE OF SAMPLE			O	O								
Mercury (mg/l & kg/day)												
Nickel (mg/l & kg/day)												
Zinc mg/l & kg/day)												
Phenolic Compounds (mg/1 & kg/day)												
All Applicable Standard Observsations			W	W								
Bottom Sediment Analyses and Observations												
Tot. Ident. Chlori. Hydro-carbons (mg/l & kg/day)												

LEGEND FOR TABLE

TYPES OF SAMPLES

C = grab sample
C-6 = composite sample - 6-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-intergrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/D = twice per day
2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous